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P R O G R E S S   R E P O R T

ON THE

MANPOWER SURVEY IN LATIN AMERICA



I

The study of manpower problems is an organic part of ECLA's many-sided researches into the economic development of Latin America.

The outstanding demographic feature of Latin America, the rapid growth of its population, imposes a heavy strain upon its various national economies, which are forced to develop at a faster rate than the population increase if the standard of living is to rise and not to fall.

Another feature which has latterly acquired great significance is the fact that the rate of increase in the number of people looking for work, i.e. entering the labour market, greatly exceeds the rate of growth of the population. The fact that the actual labour supply expands more rapidly than the population, through the combined influence of several factors to be explained later, imposes an even greater strain upon the Latin American economies than would result from population growth alone, as it calls for a very rapid expansion of all those branches capable of providing proper employment for the entire surplus labour outside agriculture.

Further strain upon the economy is imposed by changes in the settlement pattern of the population and the corresponding labour force; the trend is towards a rapid shift from rural areas to towns, with all the known economic consequences of urbanization: changing pattern of consumers' demand, increased need for buildings, and the acute necessity for all types of services, including those almost unknown in rural areas, but indispensable to town dwellers.

There are some reasons for believing that the magnitude of such shifts of rural population to towns is only partly justified by the process of economic development, but to discover how far the process of urbanization reflects organic changes in economic structure, and more generally, what are the basic tendencies in regard to the re-allocation of population, requires the detailed attention that only special studies can provide.

A better understanding of the whole structure of the Latin American countries, as well as of the rapid changes now in progress, can be greatly facilitated by a thorough analysis of the employment structure. Indeed, such an analysis is an essential approach to the whole question of structural economic changes.

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It has often been pointed out that Latin America is undergoing a rapid transition from an economy based mainly on primary production, exporting almost exclusively raw products and importing the bulk of its requirements of manufactured goods, to a more diversified type of economy, where industrialization is paving the way for economic advancement.

The transition is clearly reflected in changes of the employment structure, which provide an excellent means of measuring the direction and intensity of the structural changes occurring in the over-all economy.

Modern economic development is dominated by the rapid growth of industry and services, but between these two sectors, as well as among their component branches, a proper equilibrium, essential to a well-balanced and efficient economic system, is only seldom achieved. The same may be said about the balance between the growth of these sectors and the development of agricultural production.

The detailed development pattern of industry and services needs closer study, and on the basis of the conclusions drawn it becomes possible to focus attention on the less developed branches, so that there may be an adequate allocation of available resources.

The most complex problem is, of course, industrialization. A great variety of industrialization patterns, each producing different effects on the economy, can be conceived. Consequently, in modern times, a structural analysis of industry is indispensable for a sound economic policy, and it has therefore been necessary rapidly to develop appropriate methods of making such an analysis. One of these methods consists in connecting the facts relevant to industrial development with the manpower factor, by calculating a series of coefficients relating labour with the employed capital, with the input of other factors of production - for instance, the use of electric energy - with the results of the production process.<sup>1/</sup> Apart from this, any

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<sup>1/</sup> Such ratios are for example: manpower-total capital ratio, manpower-fixed capital, manpower-value of machinery, employed power-manpower ratio, consumed energy-manpower, gross and added value of production per employed person or per worker or per operative, in relation to the year or hour of work, physical volume of production-manpower ratio. A calculation of this kind is of great help in understanding the actual industrial situation.

type of structural analysis of industry may be greatly facilitated by a preliminary survey of the industrial employment structure.

Besides quantitative aspects of employment, as the economy becomes more diversified, the qualitative problems connected with manpower availability are steadily gathering importance. A detailed analysis of the employment structure becomes an indispensable first step in any inquiry into the dependence of economic development on the supply of skilled labour.

It is universally recognized that the rapidity of industrial development with the given supply of capital is to a great extent determined by the supply of skilled labour, from skilled workers to staff with managerial abilities.

There is no need to stress the fact that the average productivity of labour in Latin America is low, resulting in a low average national product per capita. An increased average income can be achieved only by raising the average productivity of manpower, and this cannot be obtained by isolated efforts limited to large-scale mining and large-scale manufacturing, which already have a strikingly higher productivity per person employed than the average for all other branches of the economy. The very inadequate productivity of the great bulk of the active population is obviously the result of insufficient employed capital, combined with the lack of professional skills.

With such a notorious scarcity of capital, the most efficient use of the meagre resources available demands careful investigation into the actual productivity of manpower, closely analysing the reasons for insufficient productivity and the possible ways of increasing it.

An analysis of this kind is essential as a means of indicating how capital may be employed with the greatest efficiency, with the aim not only of making the best possible use of domestic resources but also of attracting indispensable foreign capital.

## II

These are the main reasons, by no means academic, but dictated by practical economic considerations, which made it very necessary to embark upon extensive studies of problems related to manpower.

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It is clear from the foregoing that there are three main aspects of the manpower problems affecting the economy: the supply of labour and its expansion, resulting from the growth of the population and other demographic, economic and social changes; the employment structure of the available labour force; and the productivity of the employed manpower. Accordingly, the Manpower Survey is divided into three parts:

In part I, which deals with general population problems and their effects on the supply of labour, study is devoted, firstly, to the growth of the population. The picture is completed by an analysis of the main types of migratory movements as an auxiliary factor in population changes.

The age composition of the population is then investigated, with special attention to people of a suitable age for work, or people of active age, who form a basis for calculating the actual and the prospective availability of manpower.

An enquiry into the numbers of the actual labour force follows. It necessarily starts with a discussion of the very concept of the economically active population. This concept, applied to many branches of the economy, varies from country to country, especially where under-developed regions are concerned. It is much more uniform in the highly industrialized communities. Latin America, however, belongs principally to the former category. Incidentally, the total size of the labour force as given in statistics, greatly depends upon accepted definitions; special discussion is therefore necessary to clear the field of investigation, at least partially, of ambiguities.

After an enquiry into the size of the economically active population, separate investigation is conducted into the problems of the agricultural and the non-agricultural labour force, as these two basic types of employment are subject to distinctly different rules. As regards the non-agricultural population, problems of the non-productive population living on unearned incomes, are also discussed, as well as those of the marginal population, theoretically productive, but not related to any definite branch of the economy, and living on the subsistence level.

The rural-urban structure of the population and the process of urbanization, which is closely connected with the shift of the agricultural population to non-agricultural branches of economy, are the next problem

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Finally the relationship between quantitative and qualitative aspects of the labour supply is investigated, with special reference to the problem of the increasing mobility of labour.

In part II, the general employment structure is first analysed, with special attention to the decrease in the percentage of the labour force engaged in primary production; to the increase of the proportion employed in industry and services; and to the changes in the ratio of employment in services to employment in industry.

This is followed by inquiries regarding employment in agriculture proper, forestry and fishing; and then employment in mining, manufacturing industry, and construction.

Manufacturing industry is investigated most carefully, separate analyses being devoted to the main groups of industry, with a distinction between industry proper on the one hand, and handicrafts and homecrafts on the other. Thereafter a more detailed analysis is made of industry proper, where each of the main groups of industry is analysed by its branches.

This analysis reveals a number of important structural aspects, leading to preliminary conclusions about the general characteristics and trends of industrialization in Latin America as a whole, and in its individual member countries. It also makes possible a determination of the prospective evolution of that industrialization.

Discussion turns, next, to the employment structure in the main branches of services. This is followed by a general analysis of the pattern of economic development in Latin America, as seen from employment data, and of the main changes in that pattern, during the transitional period, with a brief summary of development prospects for the next one or two decades, on the basis of different assumptions regarding the future pattern of industrialization.

In part III a preliminary inquiry is first made into the productivity of manpower by main sectors of the economy, based on ECLA's studies of the value of the national product in Latin America.

Secondly, productivity of manpower in agriculture is discussed, introducing a simplified method for calculating productivity of manpower in  
/terms of

terms of cultivated agricultural land, which facilitates inter-country and inter-regional comparisons of productivity of agricultural manpower.

Finally, a comparative analysis of the productivity of industrial manpower is made, by branches of employment, on the basis of the industrial statistics of selected countries.

As there are obviously very great differences of demographic and general economic conditions among individual countries of Latin America, all manpower problems are investigated for each country separately, and on the basis of such studies a general picture of Latin America, wherever possible, is built up and presented.

### III

To turn now to the problems of population development and labour supply, the fact of greatest significance seems to be that available manpower, for which employment should be found outside agriculture, grows at a much faster rate than the already rapidly increasing total population. The prospects of manpower growth two decades ahead, i.e. for the period 1950-75, may be presented in the following way:

	1950	1975	1950-75	
	No. of persons in thousands	No. of persons in thousands	Annual rate of growth	Increase per cent
Total population	154,965	276,921	2.35	78.7
Coefficient of active age (15- 64)	56.5	58.5	--	--
Population of active age	87,555	161,999	2.49	85.0
Active population coefficient	34.2	37.0	--	--
Population economically active	53,168	102,461	2.62	92.7
Per cent of agricultural labour force	53.2	32.2	--	--
Agricultural labour force	28,282	33,000	0.62	16.7
Non-agricultural labour force	24,886	69,461	4.19	179.1

/The general



The general situation thus presented arises from an accumulation of specific problems, determining the present and the prospective supply of labour in Latin America, which may be summarized as follows:

1. Latin America shows the highest annual rate of population growth among all the big regions of the world. During the last 20 years this rate has steadily risen from 18.6 per mil in 1930-35 to 24.0 per mil in 1950-54. The exceptionally high rate of natural increase is due to systematically falling death-rates, together with fairly constant birth-rates, which in some cases have even been increasing during the last decade. The net result is that the population of Latin America, during the 34 years from 1920 to 1954, has exactly doubled.

A remarkable demographic feature of Latin America in recent years was that countries with a medium fertility level represented only 12.6 per cent of the total population of the region. Countries with high fertility by international standards (birth-rates over 30 per mil) represented 87.4 per cent, within which countries of very high fertility (birth-rates over 40 per mil) constituted 64.8 per cent of the total population.

As to mortality, the death-rates in the region have already fallen on the average to a medium level. The countries with death-rates of 15 - 20 per mil in 1950-53 represented as much as 73.0 per cent of the population. Higher death-rates still persisted in countries having only 6.6 per cent of the population, while the remaining 20.4 per cent belonged to nations with a death-rate of under 15 per mil.

The observed trends of fertility and mortality in the past, and the analysis by countries of the main factors influencing birth-rates and death-rates operative in Latin America, make it possible to estimate the future evolution of fertility and mortality, taking into consideration the prospective trends of economic development.

The main factors affecting the birth and death rates of the population are: the age-sex composition, the standard of living, the pattern of living, the type of culture and social customs, the type of climate, the medical and health services, the care of young children.

Taking into account the combined influence of all these factors - despite the inevitable spread of the tendency to reduce the size of families -

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it may be expected that in most Latin American communities during the next two decades there will not be any really substantial lowering of the rates of natural increase. As a result, even with rapid urbanization during these 20 years, the natural rates of increase should at first keep almost steady and afterwards probably decline only slowly. Not until the middle of the 1970's can these rates be expected to decline more rapidly.

According to the estimates based on this assumption, it is possible that the population of Latin America, compared with the 1950 figure (155 million) will double during the next 31 years, i.e. by 1981. If this hypothesis is extended to the more distant future, by 2000, the population will have been augmented by as much as 175 per cent, i.e. to a figure of about 426 million.

2. In addition to the vegetative growth, the size of the population in Latin America and its distribution are, of course, also influenced by migratory movements.

These are of three types:

Firstly, immigration from overseas, which, in the fairly recent past, was a factor contributing very substantially to the growth of the population of the whole temperate zone of Latin America (Argentina, Uruguay, Chile and the southern states of Brazil, including the State of Sao Paulo). The periods of greatest immigration were from 1880 to 1914, afterwards in the 1920's and then during the years 1935-40. The last big wave of immigrants came between 1947 and 1952, and was partly of a casual nature, being connected with the resettlement of persons displaced by the events of the Second World War. However, if the casual elements of post-war immigration are excluded, each successive immigration wave was smaller, and with the increasing size of the local population, its influence upon the rate of population growth gradually became weaker. Lately the flow of immigration from overseas seems to have a tendency to stabilize itself at such a low level, that the influence of immigration upon the population growth of Latin America becomes insignificant, and will continue to be so, unless the immigration policy radically changes.

At the same time, the second and third type of migratory movement have been growing. One is inter-Latin-American migration, consisting mainly of emigration from small and under-developed, or over-populated countries, to their more rapidly developing and larger neighbours.

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The other and more important movement is composed of intra-regional migrations within the large countries of Latin America. The greatest migration observed in recent years in Latin America was that from Brazilian north-eastern and eastern states to the State of Sao Paulo and to the southern region of Brazil in general.

The growth of the two latter types of migratory movement demonstrates that, in general, Latin America exemplifies the phenomenon of an increasing mobility of labour. This provides, to a large extent, a substitute for immigration from overseas in the regions where the latter was previously one of the main sources of the labour supply.

But although local deficiencies of labour in quantitative terms have been solved by mass immigration from other countries or other parts of the same country, satisfaction of the internal demand for skilled personnel still depends upon immigration. In contrast to earlier non-selective immigration from overseas, the keynote is now a selective immigration organized and assisted by the interested states. Two main types of organized immigration must be contemplated: immigration of agriculturists for land-settlement schemes and immigration of industrial specialists for newly developing industries. The outlook for such qualified immigration depends entirely upon the vigour and pattern of economic development for which it will provide certain key elements. However, despite its renewed economic importance, the numerical size of the immigration from overseas which can be anticipated will be modest and will have practically no influence upon the broad demographic problems of the region.

3. Among the great regions of the world, Latin America has one of the lowest proportions of people of active age (15-64). At 56.5 per cent in 1950, compared with 65.0 per cent for the same year in the United States, this proportion implies that in the latter there are 15 per cent more persons of an age suitable for work than in Latin America taken in relation to the whole population. This also means that the active population of Latin America carries a heavy burden in maintaining those not able to work. On the other hand, the predominantly youthful character of the population makes it more easily able to adjust itself to the new employment patterns, thus facilitating rapid economic development.

/Age composition

Age composition has not changed much during the last few decades. In some countries the proportion of people of active age has slightly increased; in others, under the impact of rising birth-rates, it has slightly declined. However, a comparison with the development of age structure in other countries, and a study of the impact of foreseeable changes in birth and death rates upon the age distribution profile, make it possible to anticipate at first a slow increase of the percentage of people of active age, raising the present 56.5 per cent to perhaps 58.5 per cent, by 1975, followed, however, by a more rapid further increase.

Such a change in age structure would mean that if by 1975 the Latin American population has increased by 79 per cent, i.e. at an annual rate of 2.35 per cent, the population of active age will have increased by about 85 per cent, i.e. at an annual rate of 2.49 per cent. During the second half of the century, with a 175 per cent population increase, the available manpower will have increased over 200 per cent, i.e. more than tripled itself.

4. It is very difficult to study the exact changes of the economically active population and its proportion to the total population (which we shall call the "active population coefficient") because of the lack of a clear-cut line dividing economically active from non-active people in primitive and also in under-developed communities.

The greatest difficulties of this kind are encountered in agriculture, in primitive forest and mining activities, in handicrafts and homecrafts, and in petty trading. Part-time and seasonal work also create great complications, since they lead to the inclusion of the number of persons who are neither fully active nor passive.

It is only in modern communities with clearly defined types of employment, vanishing homecrafts and dwindling numbers of casual workers, that it becomes possible to obtain relatively exact and internationally comparable statistics of people economically active in all the main sectors of the economy.

For Latin America it was possible to obtain more or less satisfactory figures for no period earlier than that around 1950. Even then, a series of readjustments, mostly concerning the number of females considered to be

/economically active

economically active in the agricultural sector, were indispensable if a realistic result and an internationally comparable picture of employment were to be obtained.

From this analysis it was found that the over-all active population coefficient for the whole region equalled 34.2 per cent, which is very low when compared with other great regions and major countries of the world, where it fluctuates on the average between 38 per cent and 45 per cent.

Only a few countries of Latin America approach the international averages: firstly there are countries of the temperate zone, i.e. Argentina (39.2 per cent), Uruguay (38.1 per cent) and Chile (37.5 per cent). Among countries which are at a more preliminary stage of economic development, Ecuador (38.0 per cent), and the Caribbean countries - the Dominican Republic (38.4 per cent) and Haiti (38.5 per cent)<sup>2/</sup> - have a similarly high active population coefficient.

The main reason for low active population coefficients primarily lie: (i) in the low proportion of people of active age; (ii) in the preponderance of the agricultural population, which at present represents about 54 per cent of the total, and for which the average active population coefficient is lower than for the non-agricultural sectors; (iii) in the low proportion of females considered as economically active in most of the tropical parts of Latin America, for which Brazil, Venezuela, Mexico and Cuba provide the best examples.

It is, however, to be expected that with further changes in economic structure and social customs the active population coefficient will increase more rapidly than the average proportion of people of active age. Such a process was clearly perceptible in several countries during the last decade. A further development in this direction will produce an increase of the labour force which will be much more rapid than the growth of the population.

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<sup>2/</sup> If adjustments for the excessive number of females considered as economically active in agriculture is not made, Peru and Bolivia will also appear on this list.

It may be estimated that if, within the period 1950-75, the total population increases by 79 per cent and the population of active age by 85 per cent, the economically active population will tend to grow by about 93 per cent, i.e. at an annual rate of 2.62 per cent, which means that it will tend almost to double itself during this period.

5. The published statistics referring to agricultural employment, because of the difficulty of precisely determining which members of agricultural families should be considered as economically active, are to a large extent arbitrary in the under-developed countries, thus seriously impeding precise calculation of the percentage of agricultural labour within the total labour force.

However, since in the non-industrial countries the dividing line between the whole agricultural and whole non-agricultural population, is in real life very clear cut, and thus non-arbitrary, it is possible to make estimates of the agricultural labour force upon the basis of the size of the whole agricultural population, its approximate age and sex composition, and prevailing economic and social conditions in each country.

As there are no official statistics of the agricultural population in Latin America, except in the case of Chile, and most recently of Colombia, a careful estimate of the size of that population in all the countries of Latin America had to be made. The result shows that in 1950, 54.5 per cent of the population of Latin America was the agricultural population. Within the latter 35.1 per cent were economically active people - if the pattern of national statistics is accepted - or only 33.3 per cent, after readjustments to allow for the number of females considered as economically active.

There are wide differences among particular countries as regards the percentage of agricultural population, which shows a variation from a minimum of 20-25 per cent in Uruguay and Argentina to a maximum of over 80 per cent in Haiti.

The historical development of agricultural population shows that until now it has been almost everywhere increasing, but, during the last decade, at a much slower rate than before. In some of the most advanced countries the agricultural population has already ceased to grow.

/It is

It is probable that, with a fast rate of economic development,<sup>3/</sup> within the next two decades the agricultural population will cease to grow and that after a short period of apparent stabilization its decline will start. Of course, changes in agricultural population, apart from general economic development, will greatly depend upon the policy adopted in regard to the mechanization of agriculture.

The non-agricultural population may be divided into the section depending on specified activities and the remainder.

That section which depends on specified non-agricultural activities - mining, manufacturing, construction and services - in 1950 represented about 40.6 per cent of the population. Within this group, the active population coefficient is estimated as 36.9 per cent. Though substantially higher than in the agricultural sector, this is still a very low percentage compared with other countries.

The residual section of the population, representing in 1950 about 5.0 per cent of the total number of inhabitants, is composed of two parts: the non-productive population, and the marginal population.

The non-productive population is composed of people living on unearned incomes, such as rentiers, pensioners and persons in institutions. In Latin America this group is relatively very small but, in some countries, it shows a tendency to grow rapidly.

The marginal population is composed of people for whom it is difficult to determine on which branch of economy they depend and whether those of them who earn their living may be called altogether economically active. Such people virtually live on the social and economic margins of the community and therefore may be called the marginal population. This group is relatively numerous in Latin America. They probably form the majority of the residual section of the non-agricultural population.

During the last decade there was a large-scale shift of the marginal rural population to towns, accelerating the urbanization process and swelling the cities with a large mass of people of very low productivity, thus increasing the economic difficulties connected with rapid urbanization and creating grave social problems.

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<sup>3/</sup> At least such rate of economic growth as was achieved during the period 1945-51.

6. In 1950, Latin America had 59.0 per cent rural and 41.0 per cent urban<sup>4/</sup> population.

One of the characteristic features of Latin American urban structure is the high proportion of the total urban population living in large towns of over 100,000 inhabitants; in 1950 it amounted to nearly 45 per cent.

Another characteristic feature of the region's urban development is the low proportion of town-dwellers regularly employed in manufacturing industries. On the other hand, there appears to be an excess of people employed in services.

As to the changes taking place in rural-urban structure, Latin America is undergoing a rapid process of urbanization, which is faster than would seem to be justified on the basis of the development of industry and of such services as follow industrial growth.

In Latin America may be observed the phenomenon of the "autonomous" growth of towns, which, in view of the excessively low agricultural standard of living, have such an attraction for country-dwellers that their population grows faster than their possibilities of absorbing all the inflow of people able to work into fully productive and economically justified branches of employment. Hence the excessive development of certain branches of services with a very low productivity concealing a virtual unemployment, and the growth of the marginal urban population.

Urban development of this type has already been going on for a very long time; more recently, however, the industrialization process has provided it with an added stimulus.

The foregoing provides an explanation why the large cities show the highest rate of growth, while the medium-sized towns develop at the slowest rate. Also responsible is the over-centralizing tendency of industry and services, partially resulting from the under-developed transportation system.

Future urban development seems, however, to be much more closely connected than before with the prospect of industrial development. Industrialization will become the central problem, not only of general Latin American economic development, but also from the point of view of urbanization.

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<sup>4/</sup> In the urban category are here considered all centres with over 1,000 inhabitants with the exception of Panama, Argentina and Mexico, where urban centres are considered to be those with over 1,500, 2,000 and 2,500 inhabitants, respectively.



7. With rapid urbanization and a slowly growing agricultural population tending to stabilization, the fact is to be faced that this part of the labour supply which has greater mobility than is customary for agricultural labour, and which might be called the "dynamic labour supply", tends to concentrate in towns, and grows much faster than the economically active population as a whole. A good measure of its growth is the increase in the non-agricultural labour force. On the rough assumption that the agricultural labour force in Latin America will, during the period 1950-75, increase from 28.3 to 33.0 million,<sup>5/</sup> i.e. at an annual rate of 0.62 per cent, with the previous estimate of the total number of economically active people, the non-agricultural labour force would increase by close to 180 per cent, i.e. would nearly triple itself during the present quarter-century. This vast addition to the labour force must, during this period, be absorbed by mining, industry, and services, and productive employment must be created for these people.

Unfortunately, so far as the quality of the labour supply is concerned, the overwhelming majority is either unskilled or only slightly skilled. The present professional cadres, both in teaching and productive functions, are completely insufficient, even for the present size of the labour market. Specifically, in the field of manufacturing, the old branches of industry could carry on production with a relatively low proportion of highly skilled specialists. The new branches, however, such as mechanical engineering, electrical and chemical industries, will find it most difficult to proceed with the present supply of technicians. With a rapidly increasing labour supply, short of radical changes in the educational and training system, or the large-scale immigration of skilled people and professionals, the lack of properly qualified persons will make it impossible to provide the incoming mass of new workers with fully productive employment.

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<sup>5/</sup> Calculated on the basis of the assumption that during the period 1953-78 the gross product per capita in Latin America will increase at an annual rate of 4.1 per cent, the assumption used in the paper presented at the World Population Conference in Rome 1954, by ECLA. Obviously, with a slower rate of economic growth the agricultural labour force in 1975 will inevitably be higher.

## IV

1. As far as employment structure is concerned,<sup>6/</sup> the present average development of Latin America - when compared with the other main regions of the world - may be judged to correspond to the degree of development of the countries of Southern Europe.<sup>7/</sup> The main difference in the field of employment structure will lie in the lower percentage of industrial employment and the higher proportion of employment in services, making the employment ratio service-to-industry distinctly higher than is normally the case in Europe. This ratio is subject to characteristic changes with economic development. In under-developed countries this ratio is high, as a rule above 1.5, often over 2.0 or higher. With economic development induced by intensive industrialization it tends to approach 1.0, or even to fall below. With a further growth of national product per capita on the basis of high productivity in the primary and secondary sectors, the employment ratio services-to-industry grows again, approaching 1.5 in the United States.

The distribution of the Latin American labour force shows: primary sector 54.4 per cent; industry 17.7 per cent; services 24.6 per cent; unspecified activities 3.3 per cent. The average ratio of services-to-industry is 1.39, but this ratio, which approaches North American ratios, in the case of Latin America means a lower, and not a higher stage of economic development than that of Western Europe.

The differences in employment structure among particular countries of Latin America are very great. The percentages of employment vary - with the increasing degree of development - between countries at opposite ends of the scale, as much as - in the primary sector - from approximately 82 per cent (Haiti) to about 21 per cent (Uruguay); in industry from about 6 per cent (Haiti) to 29 per cent (Argentina); and in services from approximately 9 per cent (Haiti) to approximately 47 per cent (Uruguay).<sup>8/</sup>

<sup>6/</sup> See APPENDIX, table 1.

<sup>7/</sup> See APPENDIX, table 2.

<sup>8/</sup> See APPENDIX, tables 3 and 4.

A detailed study of employment structure in particular countries reveals three distinct development patterns at present in Latin America: (i) Countries with booming primary production, where there is a rapid increase of the gross product, generated mainly by the primary sector, irrespective of the structural advance. In such countries the relative employment in industry and services lags behind the rise of incomes. Venezuela is the best example of this type. (ii) Countries of "regular" structural type, where the development of the employment structure and the level of the national product per capita are balanced. These are countries with a fairly (though still not adequately) diversified economy, whose production is generated more or less proportionally by all sectors of the economy. As might be expected, all the four largest countries of Latin America belong to this type, although only a decade ago Colombia belonged to the first type. (iii) "Income retarded" countries are those whose degree of development of employment structure and degree of urbanization are in advance of the slow growth of the national product. This reflects partly past periods of prosperity, which shaped the economic and employment structure, and partly the excessive influx of the rural population, seeking employment in the towns, owing to the specific character of the agrarian structure and a generally slow development of agriculture. At present, Peru and Chile belong to this group.

There are some countries which cannot yet be fitted into any one of the three main types of structural development; they remain as it were, "outside", because they are still in a preliminary stage of development. Bolivia, Paraguay and Haiti fall into this category.

What is true, in respect of these three basic types applied to countries as a whole is also valid for separate natural regions of the individual large countries of Latin America. The best example is furnished by Brazil, where individual regions, separated by great distances, show a very heterogeneous pattern of structural development. Among these regions, all three main structural types mentioned above may be found.

On the average, during the 'forties industrial employment increased a little more rapidly than employment in services. It seems that during the last few years this situation, with a few exceptions, has tended to be reversed. If this is more than a purely short-term fluctuation it will again

/increase the

increase the disparity between the industrial and service sectors. This phenomenon takes place despite the rapid growth of industry; however, such growth now means a more rapid increase of industrial production than of the number of people employed, because at present it is the more capital-intensive industry proper which is developing faster than labour-intensive handicrafts, while, simultaneously, homecrafts tend to disappear. On the other hand, the development of industry proper is still only gathering momentum and until now has been unable to absorb an adequate proportion of the total incoming labour, which is thus forced into the service sector.

2. As regards the agricultural labour force, a striking phenomenon is the high proportion of males active in agriculture and related activities, to the total number of males economically active (59 per cent), which was recently (in 1950) much higher than the proportion of agricultural labour to total population (54.5 per cent). This phenomenon appears in all the countries without exception. It is explained not only by the predominant character of Latin American agriculture and related activities, which demand mostly male labour, but also by the scarcity of opportunities for males to find proper jobs outside agriculture.

The combined result of the scarcity of opportunities for males to work outside agriculture, of the unbalanced agrarian structure in many regions, of the scarcity of agricultural land in some countries, and of the prevailing lack of adequate progress in the field of agricultural production, is the widespread under-employment of males in agriculture. This under-employment of males is much more acute than that of females who have an easier outlet to towns, where, at the present stage of economic development, a larger number of women than men is needed, to work in domestic service, in a variety of other services and in light industries. This phenomenon strongly stimulates internal and inter-Latin-American migrations, although opportunities for such migrants in new areas are often limited.

Forest activities employ a substantial proportion of the total labour force in only a few countries of Latin America: in Paraguay the proportion is as much as 13 per cent; it is followed by Brazil (1.4 per cent), Argentina (1.2 per cent), Honduras (1.0 per cent) and Nicaragua (0.9 per cent). The general tendency is for a declining number of people to depend

/on this

on this sector, despite the fact that proper forest cultivation is only beginning. Hitherto, the gathering of forest products provided the bulk of employment, but with the development of regular agricultural activities, this activity is shrinking.

In 1950, fishing, which in the whole of Latin America employed only approximately 180 thousand persons as compared with about 480 thousand in forest activities, is a rapidly developing branch of production with a great future and with corresponding prospects of employment.

3. Total employment figures in mining in Latin America are rather modest. In 1950, they were approximately 630 thousand. This would suggest that, on an average, Latin American mining is much less developed than in North America and Europe, despite its paramount importance in the international trade of some countries. Employment in mining represents only 1.2 per cent of the total labour force, but its ratio to industrial employment (6.7 per cent) is fairly high.

Among the countries with the greatest proportion of employment in mining to the total labour force are: Bolivia (5.7 per cent), Chile (3.9 per cent), Venezuela (2.7 per cent), Colombia (2.0 per cent), Peru (2.0 per cent), Nicaragua (1.5 per cent) and Mexico (1.2 per cent). In other countries this ratio is below 1 per cent.

However, the importance of mining in particular countries is only partially reflected in employment figures, because of the sharp contrast in the output per miner, depending on the type and structure of mining activity, ranging from large-scale modern mines to dwarf-scale mines and individual gold-washers and prospectors. In eight leading mining countries in 1950, as against a total employment of 600,000 miners, mining on an industrial scale employed only 335,000 people, i.e. about 56 per cent of the total. Among those eight countries the highest percentage of large-scale mining is in Venezuela, followed by Argentina and Mexico (all three nearly at or above 90 per cent), and the lowest in Colombia and Brazil (where large-scale mining employed under 25 per cent of the active mining population).

In regard to the different branches of mining, the employment figures reflect the characteristic fact that in Latin America by far the most important branches are engaged in the extraction of mineral oil and

/non-ferrous

non-ferrous metals - which are mainly exported - while coal-mining, iron-ore mining and the extraction of chemical minerals remain greatly undeveloped. This situation is, to a large extent, caused by under-industrialization, national industries being the main consumers of the latter minerals. Under these conditions the future prospects in mining depend not only on export opportunities but largely on industrialization.

With developing metallurgical, chemical and non-metallic mineral industries, coal-mining, iron-ore mining and extraction of chemical minerals will grow rapidly. Simultaneously, however, small-scale and dwarf-scale mining will dwindle on account of the better conditions people employed at present in such low-productive types of mining will be able to obtain in other more highly productive expanding branches of the economy, large-scale mining being the main competitive field of employment.

As a result of such changes it may be expected that the present over-all employment figures in the mining sector will not change much during the next decade. Later, however, in connection with a continuous growth of large-scale mining, such figures should start to rise again.

4. The industrial under-development of Latin America is demonstrated by the total industrial employment<sup>9/</sup> which in 1950 was some 9,400,000, for a population of 155 million. This is a lower figure than in the United Kingdom (population 50 million) and about the same as in Western Germany (population 48 million).

If, however, only employment in manufacturing industry proper, which should be considered the most important part of industrial employment, is taken into account, the resulting figure of 3,774,000 is only half the size of the corresponding type of manpower in the United Kingdom or Germany, and may be roughly compared with France, which is considerably behind the other two as an industrial power, and which has only 43 million inhabitants.

The degree of industrialization of particular countries shows wide variations. While the average Latin American percentage of industrial employment to total population<sup>10/</sup> in 1950 stands at 6.1 per cent, the percentage in particular countries varies from 2.4 per cent in Haiti and Paraguay to 11.5 per cent in Argentina, followed closely by Uruguay

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<sup>9/</sup> See APPENDIX, table 1.

<sup>10/</sup> See APPENDIX, table 4.

(10.9 per cent) and Chile (8.9 per cent). This percentage is in the average markedly higher in the eight larger countries of Latin America, those with over 5 million inhabitants, where the average ratio is 6.4 per cent, than in the remaining twelve smaller countries, where it is 4.4 per cent, or - if Uruguay is excluded - only 3.6 per cent.

As should be expected, the larger countries have a higher average degree of industrialization than smaller ones. This emphasizes the advantage derived by industrialization from larger markets. Of course, the historical advantages of an early start, higher cultural development, favourable terms of trade over a long period, and other factors not limited to larger countries, may to a great extent neutralize the disadvantages of a small population, as is demonstrated in Latin America by the example of Uruguay. However, where such conditions are more or less equal, large countries show definite superiority over smaller ones.

The division of total industrial employment between: a) Manufacturing industry proper, b) Handicrafts and homecrafts of manufacturing type, and c) construction, varies widely from one country to another.<sup>11/</sup>

The ratio of employment in industry proper (otherwise "factory industry") to total manufacturing, which for Latin America in 1950 was close to 50 per cent (49.3 per cent), varies in particular countries from about 25 per cent or under (Honduras, Nicaragua, Haiti, Ecuador, Bolivia) to over 55 per cent (Argentina, Mexico and Cuba).

Such a ratio is only loosely correlated with income level. It reflects, to some extent, the state reached by the process of disappearance of rural homecrafts, and also whether people so employed are registered in national statistics.

The proportion of employment in factory industry to the total population which varies from 0.5-0.6 per cent in Haiti, Nicaragua, Paraguay and Honduras to over 5 per cent in Uruguay and Argentina, has a slightly closer relation to the income level than the proportion of total industrial employment to the population.

The relative strength of the labour force in construction, varying in 1950 from 0.3 to 2.0 per cent of the total population (Latin American average 1.1 per cent), does not faithfully reflect the actual construction activity in

<sup>11/</sup> See APPENDIX, table 5.

various countries. What is called "employment in construction" is partly composed of full-time, regular construction workers, and partly of workers who are only seasonal, if not altogether casual labourers. The first category is relatively more strongly represented in advanced countries, while in the less advanced, the latter type of construction workers is more common. Allowing for a much greater productivity among regular workers, this indicates that the actual disparity in construction activity between more and less advanced countries is in fact greater than would appear from the employment figures only.

In the decade preceding 1950, industry proper - measured by changes in employment -- in most of the countries of Latin America developed faster than handicrafts and homecrafts. The highest rate of growth of factory employment was shown during this period by Venezuela and Mexico, 9.7 per cent and 9.3 per cent per annum respectively. In Brazil, with its already large industry, the rate was lower, 4.7 per cent and in Colombia it was 4.5 per cent. In Chile the rate was only 3.3 per cent.

In the most recent years, i.e. since 1950, the rate of growth of employment in industry proper, for Latin America as a whole, was maintained. In more industrialized countries, however, it became less uniform than before. While some countries have maintained their previous high rate of growth or even accelerated it, in other countries there was a marked slackening of industrial development.

5. The characteristics of the industrial structure common to all the countries of Latin America are:

- (i) The preponderance of industries producing non-durable as compared with durable goods.
- (ii) The high proportion of the total industrial manpower employed in the three major consumer goods industries: textiles, clothing and foodstuffs together with beverages and tobacco.
- (iii) The relative importance of industries producing minor non-durable consumer goods such as paper products and printed matter, simple rubber products, leather and leather goods, miscellaneous consumption and fancy articles.
- (iv) The much greater development of the transformation industry based on chemicals, producing mainly non-durable consumer goods, compared with the basic chemical industry, which is extremely weak in Latin America.

/((v) The



- (v) The relative under-development of the building materials, pottery and glass industries, in relation to the size of the labour force in construction.
- (vi) The preliminary stage of development of those sections of industry which produce final capital goods.

The first important conclusion which can be drawn from an employment analysis, by branches, of the main groups of industry, is that, in the present stage of industrialization of Latin America, within related industries, the branches devoted to the mass production of basic intermediate products are greatly under-developed. This under-development is most marked in the groups concerned with metals, electro-technics and chemistry, but is also very acute in cement, flat glass, plywood, pulp and paper, and some branches of textiles beginning with spinning mills. All these are largely capital intensive industries. The fact that the capacity to produce basic intermediate products is not adjusted to the capacity to produce final consumer goods (with the exception of high-grade industry products), nor to building capacity, results in the first serious bottleneck hampering economic development.

The second main conclusion drawn from an employment analysis by branches of industry referring here to the more industrially advanced countries of Latin America, is the extreme weakness of industries producing final and semi-final capital goods, i.e. all types of agricultural, industrial, transportation, and other service equipment. This is the second serious bottleneck in the economy of Latin American countries.

Towards the solution of all these structural problems of industry, the eight larger countries and Uruguay have clearly advanced much further than the smaller countries. Among the former the three major countries, Argentina, Brazil and Mexico, have advanced the furthest.

In general, the stages of industrial development, the rapidity of their accomplishment and the jump to a higher stage greatly depend on the size of the markets, which, in Latin America under present conditions mostly means internal markets. The higher the stage of industrialization, the greater becomes the relative importance of the market's dimensions.

A very important question which emerges from the previous analysis concerns the probable relative strength of industrial development in the future in the countries of Latin America. If the present development trends of particular countries persist, would not the passage of time widen the

/discrepancies between

discrepancies between the industrial development of more and less advanced countries, and of those enjoying larger and smaller domestic markets? Should this be the outlook, the necessity of inter-Latin-American co-operation, especially in the field of industrial development, will become so much the more urgent.

A rapid industrialization would greatly change present employment prospects, not only in the industrial sector, but in all sectors. Therefore, manpower projections for the next decade, or the next two decades, must rest primarily upon concrete assumptions about the basic factors governing the rapidity and character of industrial development, which becomes the central problem of economic growth.

6. From the point of view of bare employment figures, services are relatively more developed in Latin America than industry. In 1950 employment in services<sup>12/</sup> represented a proportion of 8.5 per cent to the total population (as against 6.1 per cent in industry), and 24.6 per cent to the total labour force (as against 17.7 per cent in industry).

Hitherto the development of services in Latin America has mainly pursued its own pattern and has been only loosely related to industrial development. In the pre-industrial communities services develop to suit the purposes of an economy based mainly on primary production, and such manufacturing as exists does not greatly influence the magnitude and the structure of employment in services. This is still the case in the majority of small countries in Latin America.

In countries of transitional type, industry begins to influence the pattern of services by stimulating the development of those services which are complementary to industrial development - in the first place the technical services. This applies to the majority of the larger countries of Latin America. Since the larger countries greatly predominate, this situation may be considered characteristic of Latin America as a whole.

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<sup>12/</sup> See APPENDIX, tables 3 and 4.

In the more advanced countries, or in industrialized regions of the large countries, such as the Sao Paulo region in Brazil, the development of services becomes ever more closely attached to industrial growth.

There is a relatively close connection between employment in services and degree of urbanization. The average ratio for Latin America of over-all employment in services to the urban population is 20.7 per cent. Individual countries, with few exceptions, do not deviate from this ratio by more than 20 per cent.

Total employment in services in particular countries is strongly influenced by the proportion of females employed. In general, it is the services sector where the highest proportion of females is employed; on the average the figure is 40 per cent, varying with few exceptions between 30 and 45 per cent. Those countries with more intensive industrial growth seem to have a tendency to show a lower percentage of females in services than other countries.

All services can be divided into the following five main groups: technical services,<sup>13/</sup> commercial services,<sup>14/</sup> personal services,<sup>15/</sup> communal welfare and business services,<sup>16/</sup> public order services.<sup>17/</sup>

Among these five main groups of services the greatest number of persons are employed in commercial services and personal services. Of these two groups, commercial services predominate in the most developed or most rapidly developing countries, while in the remaining countries employment figures in both sections are more or less equal and, in some cases, as for example in Chile, Peru and El Salvador, personal services employ more persons than commercial services.

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<sup>13/</sup> Power and heat supply; water supply and sewage; transport, storage and communication.

<sup>14/</sup> Distributive trade, banking, insurance, miscellaneous commercial, financial and similar agencies.

<sup>15/</sup> Lodging, catering, cleaning and hygienic services, domestic services.

<sup>16/</sup> Medical and health services, recreation services, educational services, cultural and scientific activities, religious institutions, social and welfare institutions, legal services, business services (e.g. accountancy, technical consultants etc.)

<sup>17/</sup> Public administration, justice, public security services.

The next two groups, employing many fewer people than those previously discussed, are technical services and public order services. The relative labour force in these two groups of services is subject to great variations.

Communal welfare and business services have the smallest ratio of employment to the population among the main service categories. This ratio is very low when compared, for example, with the European countries. Herein lies one of the symptoms of the general under-development of Latin America.

7. A rapid change is taking place in the relative weight of the factors influencing the employment structure in Latin American countries. The development of the factory industry is gradually gaining in importance and tending to become the main determinant of that structure, in three ways: by providing direct employment to a rapidly rising percentage of the total manpower, by exercising a positive influence upon the development of complementary branches in other sectors, and by draining manpower from agriculture and from some branches of other sectors of the economy through the incentive of higher wages, at the same time assisting such branches by means of an increased supply of mechanical equipment.

The development of those branches of services which usually cling to the rise of the income-level has a tendency to follow industrialization more closely, once secondary production begins to generate a substantial and increasing proportion of the total national product.

Depending, however, on different basic assumptions as to the prospects of industrialization, the rapidity of economic development which may be expected will vary, and so, too, will the relative rapidity of changes in employment in individual sectors. This applies as much to particular countries as to Latin America as a whole. Thus, during the next period, depending on the basic development pattern applied, with the same supply of manpower, different employment structures could be anticipated, giving very different average productivity, and consequently leading to a national product of quite different dimensions.

#### V.

A preliminary analysis of manpower productivity in different sectors and branches of the economy in various Latin American countries, makes possible the following general observations:

1. The comparison of the average gross product per economically active person, i.e. average productivity of the total labour force, shows that there are great divergencies between particular countries.<sup>18/</sup> In 1950 the average value of production per employed person was 712 U.S. dollars. In the high-income countries, the figures were much higher, in Venezuela 1,617 U.S. dollars, in Argentina 1,266 U.S. dollars. In such low-income countries such as Bolivia and Paraguay, they were 294 and 276 U.S. dollars, respectively, and in Haiti probably below 200 U.S. dollars.

These differences in productivity of the labour force resulted in even wider divergencies in gross product per capita. In 1950, with an average gross product per capita for the whole region of 245 U.S. dollars, the figure for the highest income country, Venezuela, reached 550 U.S. dollars, while for the lowest, Haiti, it was only 74 U.S. dollars. Thus, between the highest and lowest income countries, this difference represented a proportion of over 7 to 1.

2. Within particular countries great disparities could be observed between manpower productivity in different sectors of economic activity.

In general it is in the agricultural sector where the annual productivity is the lowest. The Latin American average in 1950 was 355 U.S. dollars, which was only 1/2 of the average productivity of the whole labour force, and less than 1/3 of the productivity of the labour force in the non-agricultural sectors of the economy, which was 1,117 U.S. dollars. However, in some countries, with exceptionally favourable agricultural conditions, the productivity in this sector was strikingly above the Latin American average. Argentina, with an agricultural production value of 950 U.S. dollars per employed person, is an outstanding example, and Uruguay also falls into this class.

3. The highest average productivity per employed person, among all sectors of the economy in Latin America as a whole, is in the mining sector, where it was 2,993 U.S. dollars in 1950. However, manpower productivity in mining represents perhaps a greater variation than in any other sector. The highest recorded manpower productivity in Latin America occurs in Venezuelan mining

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<sup>18/</sup> See APPENDIX, table 6.

which is mostly oil extraction (in 1950, 19,801 U.S. dollars per person). Mining is also the most productive sector in Argentina, Chile Mexico, Peru and Bolivia. At the same time a large number of people earning their living from extraction of minerals, outside of the large-scale mining enterprises, have an extremely low productivity, with the result that in those countries where such people represent the bulk of mining employment, the average productivity in mining may become the lowest among all sectors, as it is, for example, in the case of Brazil (in 1950, below 200 U.S. dollars per employed person).

In the mining sector, the productivity ratio between the highest and lowest averages reaches a proportion of 100 to 1.

4. Productivity of manpower in the industrial sector appears to be lower than in the services sector, the Latin American averages in 1950 being 834 U.S. dollars and 1,380 U.S. dollars respectively. This is caused by a wide discrepancy which exists between productivity in industry proper, and that in handicrafts and homecrafts. For example, in such a relatively non-industrialized country as Honduras in 1950, the annual value of production per employed person in industry proper is 1,275 U.S. dollars, while in handicrafts it is 607 U.S. dollars which gives a ratio of about 2:1, and the productivity in homecrafts is only 137 U.S. dollars, i.e. the productivity ratio industry proper/homecrafts reaches over 9 to 1. In the countries with larger-scale and more efficient factory industries, such ratios are undoubtedly much higher.

Thus, the low and extremely low productivity in handicrafts and homecrafts respectively, substantially reduces the average productivity of the industrial sector. It should also be added, that the productivity in construction is on the average below the productivity level in manufacturing activities, even including handicrafts and homecrafts (for Latin America in 1950, 681 U.S. dollars per person in construction, compared with 869 U.S. dollars in manufacturing).

In general, the average productivity of manpower in manufacturing industry proper is higher than the average productivity in the service sector which includes several branches where productivity per person is very low.

5. In the field of manufacturing industry proper, the typical highly productive major groups of industry in Latin America around 1950 were: basic metal industries, primary processing of petroleum and coal, transformation industry based on chemicals (paints and varnishes, pharmaceutical preparations, soap-making and similar preparations, matches), rubber industry, manufacture of beverages, and tobacco industry. Within the remaining groups of industry, there are also some highly productive branches, as for example within the foodstuffs industry the meat-packing plants, and sugar mills.

Typical low productivity groups of industry are: timber industry and clothing industry. Groups of industry whose productivity is also below the average, though usually slightly higher than the first two groups, are: building materials, pottery and glass manufactures, and leather and allied manufactures. Metal and related industries, taken as a whole, had, in most of the countries, a productivity below the average for industry proper.

Industries whose productivity is close to the average are: textile industry and foodstuffs industry.

6. In construction there are great discrepancies in the productivity of the employed labour force. Even after omitting countries with the lowest productivity level, Bolivia and Ecuador, for which statistical data on construction are uncertain, the productivity ratio between countries of the highest (Venezuela 2,042 U.S. dollars and Argentina 1,602 U.S. dollars) and the lowest productivity in construction activities (Colombia 217 U.S. dollars, Honduras 210 U.S. dollars and Peru 188 U.S. dollars) is close to 10 to 1. The obvious reasons are to be found in the differences in the character of construction activities from one country to another. In the former group of countries, large, well organized building enterprises utilizing a substantial mechanical equipment are common, while in the latter group the construction activities rely mostly upon small construction teams and upon the work of artisans. Moreover, construction work is much less regular than manufacturing and in many countries the majority of manpower in construction is composed of seasonal or even casual labourers, whose non-mechanized and insufficiently organized work has a very low productivity.

/7. The productivity

7. The productivity structure of the Latin American countries is almost invariably characterized by the high productivity of a small proportion of the total manpower, usually located within the large scale mining and factory industries, while the great majority of manpower has a low productivity.

In most of the countries of the region there is also a very large number of economically active people whose productivity is on an extremely low level. In many cases they represent a substantial proportion of the total manpower.

The number of people whose productivity could be considered as medium is rather limited, even in the richer countries.

The large mass of people working with a low productivity coefficient have a far greater influence on the average productivity level of the country than have the limited number of people working with high productivity but within narrow sectors.

8. The primary reason why productivity varies so excessively within the same economic system is the marked difference between the capital intensities of particular branches, mainly reflected in the differing mechanical equipment available to the manpower employed. In manufacturing industry this difference is closely related to the varying size of industrial establishments, one of the criteria of this size being the number of people employed per establishment. The average figures of employment per establishment in all the countries of Latin America are low, mostly below 50, in some cases below 10. Even in the most industrialized countries of Latin America, large-scale establishments (over 500 employed persons per establishment) embrace a small proportion of total industrial employment.

The secondary reason - complementary to the first - is the different degree of utilization of all forms of energy in relation to manpower.

The other reasons - more difficult to measure statistically, though this is partially possible - are the divergencies between branches of production as regards professional skill, organization, type and magnitude of incentives, and various social factors involved.

9. If the capital-formation process is to be accelerated and the equilibrium between non-balanced sections of the economy re-established, it will be

/necessary,



necessary, in addition to increasing the labour force, to raise the average productivity of manpower substantially. All efforts to raise the average productivity in most of the Latin American countries will not give substantial results if the emphasis is on developing or increasing productivity in those very narrow sectors of the economy which are already highly productive. Only by a continuous effort to raise the productivity of the broad mass of the labour force can really important results within a relatively short period be expected.

The pre-requisite for this purpose is a guaranteed supply of efficiency-increasing tools simultaneously with an adequate supply of skilled labour.

#### Explanatory notes

Statistical data presented in the progress report on the manpower survey have a preliminary character and are subject to revision.

Figures referring to particular countries derived from national statistics result from the methods used by national authorities for collecting and tabulating them. These methods sometimes differ greatly between countries. Therefore, the data presented here are not strictly comparable internationally, despite the readjustments which in some cases it was both necessary and possible to make.

Table 1  
EMPLOYMENT STRUCTURE BY COUNTRIES IN LATIN AMERICA IN 1950  
(Statistical data and estimates)

C o u n t r y	Total labour force	Primary production			Industry	Services	Activi- ties not Speci- fied
		Total	Agricul- ture	Mining			
Argentina	6,742,000	1,655,500	1,539,000	30,500	1,984,500	2,885,000	217,000
Chile	2,178,700	714,300	617,200	84,800	513,900	838,200	112,300
Brasil	17,017,400	10,369,900	9,885,100	149,100	2,942,300	3,658,500	46,700
Peru	2,795,000	1,700,000	1,625,000	55,000	514,000	531,000	50,000
Colombia	3,943,000	2,303,000	2,203,000	80,000	690,000	814,000	136,000
Venezuela	1,691,300	750,000	685,200	45,300	262,800	534,300	144,200
Mexico	8,242,100	4,921,100	4,768,800	97,100	1,197,100	1,769,000	354,900
Cuba	1,809,000	879,000	869,000	4,000	269,000	496,000	165,000
Larger countries	44,418,500	23,292,800	22,192,300	545,900	8,373,700	11,526,000	1,226,000
Guatemala	979,800	736,800	732,400	1,000	100,000	112,000	31,000
El Salvador	684,500	445,400	442,200	1,700	93,100	124,300	21,700
Honduras	510,200	391,100	381,500	3,600	46,700	55,200	17,200
Nicaragua	340,000	255,000	246,500	5,000	33,000	42,000	10,000
Costa Rica	283,300	160,900	158,300	800	41,500	72,700	8,200
Central America excluding Panama	2,797,800	1,989,200	1,960,900	12,100	314,300	720,500	82,100
Panama	264,600	132,200	130,300	400	24,700	65,400	42,300
Central America	3,062,400	2,121,400	2,091,200	12,500	339,000	785,900	130,500
Paraguay	485,800	353,000	289,500	-	34,000	98,800	...
Bolivia	1,094,000	741,000	674,400	60,000	110,000	145,000	58,000
Ecuador	1,217,100	770,500	756,500	10,000	150,000	190,000	106,600
Dominican Republic	820,400	461,200	459,600	300	76,600	124,000	158,600
Haiti	1,197,000	984,000	982,400	...	73,000	110,000	30,000
Smaller countries excluding Uruguay	4,774,300	3,309,700	3,162,400	70,300	443,600	667,800	353,200
Uruguay	912,400	187,700	182,900	1,300	260,000	430,000	34,700
Smaller countries	5,686,700	3,497,400	3,345,300	71,600	703,600	1,097,800	387,900
Latin America	53,167,600	28,911,600	27,623,400	629,900	9,416,200	13,095,400	1,744,400

## APPENDIX

Table 2

PERCENTAGE DISTRIBUTION OF THE LABOUR FORCE AMONG PRIMARY, SECONDARY  
AND TERTIARY SECTORS, IN SELECTED REGIONS AND COUNTRIES  
OF THE WORLD, ABOUT 1950

Region and country	Year	Primary produc- tion (I)	Indus- try (II)	Servi- ces (III)	Acti- vities not speci- fied (IV)	Employ- ment ratio services to in- dustry
<u>North America</u>						
United States	1950	14.1	33.6	49.6	2.7	1.48
Canada	1951	21.3	32.1	44.5	1.5	1.36
<u>Oceania</u>						
New Zealand	1954	22.9	30.3	46.3	0.5	1.53
Australia	1947	17.1	32.5	43.2	7.2	1.33
<u>Western Europe</u>						
United Kingdom	1951	8.9	45.5	44.8	0.8	0.98
Sweden	1950	21.0	39.1	39.0	0.9	1.00
Switzerland	1941	21.2	43.2	33.7	1.9	0.78
West Germany	1950	25.4	39.7	32.7	2.2	0.82
France	1946	36.5	26.8	32.8	3.9	1.22
<u>Southern Europe</u>						
Portugal	1950	49.1	23.9	26.7	0.3	1.12
Spain	1950	50.6	24.6	23.9	0.9	0.97
Yugoslavia	1953	55.3	19.5	17.0	8.2	0.87
Turkey	1950	76.4	11.8	11.8	-	1.00
<u>Latin America</u>						
	1950	54.4	17.7	24.6	3.3	1.39
<u>Middle East</u>						
Egypt	1947	65.6	12.2	22.2	-	1.82
<u>South Eastern Asia</u>						
Malaya	1947	66.6	7.6	21.3	4.5	2.80
Phillipines	1948	66.0	7.9	17.1	9.0	2.16
Pakistan	1951	77.5	6.9	12.0	3.6	1.74
Thailand	1947	84.8	2.3	11.7	1.2	5.09

APPENDIX

Table 3

PERCENTAGE DISTRIBUTION OF THE LABOUR FORCE BY MAIN SECTORS  
RELATED TO GROSS PRODUCT PER CAPITA, IN COUNTRIES  
OF LATIN AMERICA IN 1950

C o u n t r i e s	Gross product per capita US. dol- lars	Index (LA = 100)	Pri- mary pro- duc- tion (I)	In- dus- try (II)	Ser- vices (III)	Acti- vities not specified (IV)	Emplay- ment ratio ser- vices to in- dustry
1. Venezuela	550	225	44.3	15.5	31.6	8.5	2.04
2. Argentina	496	203	24.6	29.4	42.8	3.2	1.46
3. Uruguay	332	156	20.6	28.5	47.1	3.8	1.65
4. Cuba	365	149	48.6	14.9	27.4	9.1	1.84
5. Panama	324	132	50.0	9.3	24.7	16.0	2.66
6. Chile	303	124	32.8	23.6	38.5	5.1	1.63
7. Costa Rica	235	96	56.8	14.7	25.6	2.9	1.74
8. Mexico	210	86	59.7	14.5	21.5	4.3	1.48
9. Colombia	206	84	58.4	17.5	20.6	3.5	1.18
10. Brasil	195	80	60.9	17.3	21.5	0.3	1.24
11. Guatemala	168	69	75.2	10.2	11.4	3.2	1.12
12. Dominican Rep.	164	67	56.2	9.3	15.1	19.3	1.62
13. Honduras	159	65	76.7	9.1	10.8	3.4	1.18
14. Nicaragua	158	65	75.0	9.7	12.4	2.9	1.28
15. El Salvador	152	62	65.1	13.6	18.1	3.2	1.33
16. Peru	126	51	60.8	18.4	19.0	1.8	1.03
17. Ecuador	125	51	63.3	12.3	15.6	8.8	1.27
18. Bolivia	103	42	70.3	10.4	13.8	5.5	1.33
19. Paraguay	95	39	72.7	7.0	20.3	...	2.90
20. Haiti	74	30	82.2	6.1	9.2	2.5	1.51
Latin America	245	100	54.4	17.7	24.6	3.3	1.39

## APPENDIX

Table 4

PROPORTION OF THE LABOUR FORCE BY MAIN SECTORS TO TOTAL NUMBER OF  
INHABITANTS, IN COUNTRIES OF LATIN AMERICA IN 1950

(In percentages)

C o u n t r y	Gross product per capita		Total labour force	Pri- mary produc- tion (I)	Indus- try (II)	Servi- ces (III)	Acti- vities not speci- fied (IV)
	US. dol- lars	Index (LA = 100)					
1. Venezuela	550	225	33.6	14.9	5.2	10.6	2.9
2. Argentina	496	203	39.2	9.6	11.5	16.8	1.3
3. Uruguay	382	156	38.1	7.8	10.9	18.0	1.4
4. Cuba	365	149	32.8	19.9	4.9	9.0	3.0
5. Panama	324	132	35.0	17.5	3.3	8.6	5.6
6. Chile	303	124	37.5	12.3	8.9	14.4	1.9
7. Costa Rica	235	96	35.4	20.1	5.2	9.1	1.0
8. Mexico	210	86	32.0	19.1	4.6	6.9	1.4
9. Colombia	206	84	33.1	18.6	6.1	7.2	1.2
10. Brazil	195	80	32.8	20.0	5.7	7.1	0.0
11. Guatemala	168	69	33.6	24.9	3.6	4.0	1.1
12. Dominican Rep.	164	67	38.4	21.6	3.6	5.8	7.4
13. Honduras	159	65	34.1	25.8	3.3	3.8	1.2
14. Nicaragua	158	65	32.2	24.1	3.1	4.0	1.0
15. El Salvador	152	62	36.9	24.0	5.0	6.7	1.2
16. Peru	126	51	34.5	21.0	6.3	6.6	0.6
17. Ecuador	125	51	38.0	24.1	4.7	5.9	3.3
18. Bolivia	103	42	34.9	24.6	3.6	4.8	1.9
19. Paraguay	95	39	34.5	25.1	2.4	7.0	...
20. Haiti	74	30	38.5	31.6	2.4	3.5	1.0
Latin America	245	100	34.2	18.4	6.1	8.5	1.1

Table 5

## EMPLOYMENT IN THE INDUSTRIAL SECTOR IN LATIN AMERICA IN 1950

(Statistical data and estimates)

C o u n t r i e s	Total industrial employment	M a n u f a c t u r i n g			i n d u s t r y		Construc- tion
		Total	Industry No.	proper %	Handicrafts & homecrafts No.	%	
Argentina	1,984,500	1,640,000	935,000	57.0	705,000	43.0	344,500
Chile	513,922	438,225	188,869	43.1	249,356	56.9	75,697
Brazil	2,942,326	2,361,749	1,282,572	54.3	1,079,177	45.7	580,577
Peru	514,000	434,000	130,000	29.9	304,000	70.1	80,000
Colombia	690,000	570,000	170,000	29.8	400,000	70.2	120,000
Venezuela	262,830	171,726	80,000	46.6	91,726	53.4	91,104
Mexico	1,197,104	972,592	540,000	55.5	432,592	44.5	224,512
Cuba	269,000	227,800	136,680	60.0	91,120	40.0	41,200
Larger countries	8,373,682	6,816,092	3,463,121	50.8	3,352,971	49.2	1,557,590
Guatemala	100,000	80,000	25,000	31.3	55,000	68.7	20,000
El Salvador	93,061	74,424	31,145	41.8	42,279	58.2	18,637
Honduras	46,700	37,200	8,423	22.6	28,777	77.4	9,500
Nicaragua	33,000	26,000	6,000	23.1	20,000	76.9	7,000
Costa Rica	41,495	29,870	13,500	45.2	16,370	54.8	11,625
Central America exclud. Panama	314,256	247,494	84,068	34.0	163,426	66.0	66,762
Panama	24,675	18,018	7,679	42.6	10,339	57.4	6,657
Central America	338,931	265,512	91,747	34.6	173,765	65.4	73,419
Paraguay	34,000	28,800	8,500	29.5	20,300	70.5	5,200
Bolivia	110,000	80,000	25,000	31.3	55,000	68.7	30,000
Ecuador	150,000	125,000	30,000	24.0	95,000	76.0	25,000
Dominican Republic	76,541	57,068	21,000	36.8	36,068	63.2	19,473
Haiti	73,000	63,000	15,000	23.8	48,000	76.2	10,000
Smaller countries exclud. Uruguay	443,541	353,868	89,500	25.3	254,368	74.7	89,673
Uruguay	260,000	220,000	120,000	54.5	100,000	45.5	40,000
Smaller countries	704,541	573,868	219,500	38.2	354,368	61.8	129,673
Latin America	9,416,154	7,655,472	3,774,368	49.3	3,881,104	50.7	1,760,682

## APPENDIX

Table 6

## GROSS PRODUCT PER EMPLOYED PERSON IN LATIN AMERICA IN 1950

(In constant 1950 U.S. dollars)

C o u n t r y	Gross product per capita	Gross product per employed person					
		Whole econo- my	Agri- cul- ture and related acti- vities	Mining	Manu- factu- ring	Cons- truc- tion	Ser- vices
1. Venezuela	550	1,617	448	19,801	1,730	2,042	1,531
2. Argentina	496	1,266	950	2,984	1,221	1,602	1,507
3. Uruguay	382 <sub>a</sub> /	1,003 <sub>a</sub> /	...	...	...	...	...
4. Cuba	365	1,094 <sub>a</sub> /	...	...	...	...	...
5. Panama	324	971	...	...	...	...	...
6. Chile	303	807	469	1,415	705	581	1,181
7. Costa Rica	235 <sub>a</sub> /	664 <sub>a</sub> /	...	...	...	...	...
8. Mexico	210	657	220	2,577	1,074	298	1,689
9. Colombia	206	623	443	638	804	217	1,108
10. Brasil	195	597	302	161 <sub>a</sub> /	684	418	1,417
11. Guatemala	168	478	...	...	...	...	...
12. Dominican Rep.	163	425	...	...	...	...	...
13. Honduras	159	445	328	556	511	210	1,064
14. Nicaragua	153 <sub>a</sub> /	491 <sub>a</sub> /	...	...	...	...	...
15. El Salvador	152	412	...	...	...	...	...
16. Peru	126 <sub>a</sub> /	365 <sub>a</sub> /	229	2,036	318	188	710
17. Ecuador	125 <sub>a</sub> /	324 <sub>a</sub> /	201	...	504	...	593
18. Bolivia	103 <sub>a</sub> /	294 <sub>a</sub> /	250	550	138	...	463
19. Paraguay	95	276	167	...	868	577	476
20. Haiti	74 <sub>a</sub> /	191 <sub>a</sub> /	...	...	...	...	...
Latin America	245	712	355	2,993	869	681	1,380

<sub>a</sub>/ Rough estimates.

